REMARKS

Applicant acknowledge with thanks the Examiner indication that claims 2-4, 15, 20-22, 33, 38, 48, 53-55 and 70-72 would be allowable if rewritten in independent form to include the limitations of the independent claims and any intervening claims.

Applicant also acknowledges receipt of the Examiner's comments in the Summary of Examiner Initiated Interview. In accordance with the understanding reached between the Examiner and Applicants' previous representative for service, Applicants amended independent claim 1 to change the term "fourth network element" to "policy control entity", "third network element" to "gateway or communication control network element", and "first network element to "user equipment". Applicants further amended claims 2-8, 13-17 and 84, depending from claim 1, to make the language recited therein consistent with the amended language of claim 1. On the other hand, Applicants' maintained the original language used to identify the network elements recited in the other independent claims so as to recite the claimed invention using more generic terminology.

The Examiner objected to claim 1 on the ground that "the occurrence of the phrase 'derivable' is not a positive claim limitation as it will call into effect the limiting factor of the limitation following the phrase as it will make the limitation optional" (Office Action, pages 2-3). The Examiner also objected to claim 2 on the ground that "the occurrence of the phrase 'processable' is not a positive claim limitation as it will call into effect the limiting factor of the limitation following the phrase as it will make the limitation optional" (Office Action, page 3). To expedite prosecution of the present application, Applicants amended claim 1 to replace the term "derivable" with "derived", and amended claim 2 to replace the term "processable" with "processed". Applicants similarly amended claims 19, 37, 52, 67-69 and 84-87.

Additionally, Applicants added new independent claim 89 reciting feature that are similar to features recited in independent claims 1, 19, 37, 52, 67-69 and 86-87.

The Examiner rejected claims 1, 5-16, 19, 34, 37, 39-47, 49, 52, 56-69 and 73-87 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. US 2002/0184510 to Shieh in view of U.S. Publication No. 2002/0114305 to Oyama. The Examiner also rejected claims 17, 18, 50 and 51under 35 U.S.C. §103(a) as being unpatentable over Shieh in view of Oyama, and further in view of U.S. Patent No. 7,024,487 to Mochizuki *et al.*

Applicants' independent claim 1 recites "receiving, by a policy control entity, a request by a gateway or communication control network element for an authorization for connection parameters, wherein at least one service data flow is used in a communication connection from a user equipment to the gateway or communication control network element and the communication connection aggregates multiple service flows; deciding, in the policy control entity, on the connection parameters to be authorized for the communication connection and on service data flows that can be provided for the communication connection; and sending a decision message from the policy control entity to the gateway or communication control network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the policy control entity is to be consulted for a further authorization to admit the service flow." Thus, in some embodiments, a decision message sent from the policy control entity to the gateway or communication control network element provides information from which the identity of at least one service data flow that requires further authorization from a policy control entity (that granted an initial authorization to various service flows) can be derived. As explained in the present application:

> [0055] … The PDF 3 generates a decision message (DEC in FIG. 3) with which the QoS authorization decision on behalf of the GGSN 2 is provided. For example, the PDF 3 provides a maximum PDP context QoS and/or charging level. Additionally, the DEC message includes a list of the currently activated/allowed services and associated control policies, for example, in the form of a vector {service(i), policy(i)}. The definition of a service is provided by the network service management system through configuration. For example, a service can be referred by a service access point name or by a set (i.e. one or more) of packet classifiers. For a particular service, the policy tells whether (or not) a further authorization of flows within the service definition is needed from the PDF 3. In other words, the PDF 3 determines which services has to be authorized again by PDF 3 (if identified) and which services can be GGSN controlled (e.g. per sAP or per service). If a service does not require further authorization by the PDF, the service specific policy may indicate e.g. quality of service level for the service. Furthermore, charging policies for the services can be transmitted in the DEC messages as well. Alternatively, in the initial authorization phase for the (primary) PDP context, the PDF 3 can indicate also overall QoS parameters for the connection (PDP context type) as well as default QoS parameters for the services authorized by GGSN 2. The above steps are indicated as steps S30 and S40 in FIG. 2A.
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> …

> [0058] The GGSN 2 receives the DEC message from the PDF 3 and processes it (FIG. 2A, step S50). On the basis of the authorization information for the QoS level indicated in the DEC message, the GGSN2 enforces the decision of the PDF 3 for the connection parameters in the user plane processing (PDP context) and the QoS signaling for the communication connection. In order to enforce the decision of the PDF 3, the GGSN 2 may map parameters received in the DEC message to connection parameters (e.g. mapping QoS class to traffic class, traffic handling priority and allocation/retention priority). Additionally, the GGSN 2 can determine from the information portion including the vector described above for which services the PDF 3 has to be consulted again ("PDF controlled) for authorization and which services can be GGSN controlled (e.g. per sAP or service). (2004/0223602, pages 6-7, paragraphs 55 and 58)

In rejecting independent claim 1, the Examiner admitted that "Shieh fails to explicitly teach the decision message comprises an information portion from which, for each service data flow, it is derivable that for at least one of the service data flows, it is derivable that for at least one of the service data flows that fourth network element is to be consulted for a further authorization to admit the service flow" (Office Action, pages 4-5). The Examiner, however, relied upon Oyama as allegedly teaching the above features, and stated:

> Oyama from the same field of endeavor teaches that that it may inform the UE what packets can be sent on this PDP context and any charging for the PDP context; a standard or minimum set of pre-configured bearer capabilities that set for limits on the use of the bearer may be activated with the signaling usage indicator; packet filters may limit where the UE can send packets and form where destinations the UE can receive packets over this bearer; however, if a network operator permits, additional destination or additional capabilities may be allowed beyond the pre-configured minimum set of capabilities. (Office Action, page 5)

Applicants respectfully disagree with the Examiner's contentions.

Oyama describes establishing quality of Service (QoS) for a signaling bearer used to establish a multimedia session across an IP access network (Oyama, col. 1, lines 51-53). Oyama explains that UMTS/GPRS access network are configured with a standard set of bearer capabilities, and that setting a signaling usage indicator automatically activates filters in network nodes to police use of the bearer in accordance with the standard or minimum set of capabilities. Oyama further explains that if a network operator permits, additional destinations or additional capabilities may be allowed beyond the pre-configured minimum set of capabilities:

> One example way of indicating that such filters should be activated is to send another indicator or flag, hereafter referred to as a "signaling usage indicator." This signaling usage indicator may be included in the quality of service information in the PDP context setup message shown in FIG. 16. Alternatively, in a preferred example embodiment, it may be sent in a protocol configuration options (PCO) information element/parameter,

> which is part of the PDP context setup message. An example of a PCO information element is shown in FIG. 17. One of the spare bits is shown as a signaling usage indicator for implementing the one or more signaling QoS bearer restrictions. If this flag is not set, the restriction(s) is (are) not employed. Alternatively, the configuration protocol field in the third octet could include another configuration protocol code which could be used to indicate the restrictive information.
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> The signaling usage indicator may also be used to instruct a policing mechanism, such as the GGSN, to send feedback or other status information back to the mobile terminal about some aspect of the restriction/policing function. Such feedback information permits the UE to know what kind of restrictions are being placed on the PDP context. It also may inform the UE what packets can be sent on this PDP context and any charging for this PDP context, e.g., if it is free of charge or not. On the other hand, it may be desirable not to routinely require such feedback. In that case, a standard or minimum set of pre-configured bearer capabilities that set forth limits on the use of the bearer may be activated with the signaling usage indicator. Thus, if the nodes in the UMTS/GPRS access network are configured with a standard set of bearer capabilities, setting the signaling usage indicator for a bearer automatically activates filters in network nodes to police use of the bearer in accordance with the standard or minimum set of capabilities. For example, packet filters may limit where the UE can send packets and from which destinations the UE can receive packets over this bearer. However, if a network operator permits, additional destinations or additional capabilities may be allowed beyond the pre-configured minimum set of capabilities. In this case, the GGSN can send feedback to the mobile terminal about such additional destinations/capabilities. (Oyama, col. 16, lines 23-63)

While a bearer capabilities and destination can apparently be changed if a network operator so permits, Oyama, however, does not describe that its system can derive, from a decision message sent from a policy control entity, which capabilities (or services) require further permission (e.g., to be varied), and which capabilities/services do not require such permission. Rather, Oyama appears to suggest that any time that it is desired to add any destination/capabilities, a network operator's permission is required. Oyama's system does not send information to identify which particular services would require additional permission, and which other services would not require such permission. Oyama certainly does not describe that such information is derived from a decision message. Accordingly, for this reason alone, Oyama fails to disclose or suggest at least the features of "sending a decision message from the policy control entity to the gateway or communication control network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the policy control entity is to be consulted for a further authorization to admit the service flow," as recited in Applicants' independent claim 1.

Additionally, Applicants further note that claim 1 recites that a decision message is sent "from the policy control entity to the gateway or communication control network element." In contrast, Oyama describes that "[t]he signaling usage indicator may also be used to instruct a policing mechanism, such as the GGSN, to send feedback or other status information back to the mobile terminal about some aspect of the restriction/policing function." (Oyama, col. 16, lines 39-42) Thus, the signal usage indicator (which the Examiner presumably equates to a decision message) that instructs about the policing mechanism is apparently sent from a GGSN (gateway GPRS serving node) to the mobile terminal. Oyama does not describe that such a signal usage indicator is sent from a policy control network to a gateway or communication control network element. Accordingly, for this reason too, Oyama fails to disclose or suggest at least the features of "sending a decision message from the policy control entity to the gateway or communication control network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the policy control entity is to be consulted for a further authorization to admit the service flow," as recited in Applicants' independent claim 1.

Because neither Shieh nor Oyama discloses or suggests, alone or in combination, at least the features of "sending a decision message from the policy control entity to the gateway or communication control network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of service data flows the policy control entity is to be consulted for a further authorization to admit the service flow," Applicants' independent claim 1, and the claims depending from it, are patentable over the cited art.

Applicants' independent claims 19, 37, 52, 67-69 and 86-88 recite "wherein the fourth network element is further configured to generate and send a decision message to the third network element, wherein the decision message comprises an information portion from which, for each service data flow, it is derived that for at least one of the service data flows the fourth network element is to be consulted for a further authorization to admit the service flow," or similar language. For reasons similar to those provided with respect to independent claim 1, independent claims 19, 37, 52, 67-69 and 86-88, and the respective claims depending from them, are patentable over the cited art.

CONCLUDING COMMENTS

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Applicants ask that all claims be allowed.

If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below. The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 39700-597001US/ NC39921US.

Respectfully submitted,

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